

## ABSTRACT

A modulated pulse wave requires a pulse width of 1 nsec or less, but it is difficult that a PIN diode, which is conventionally used treats such a modulated pulse wave with narrow pulse width. In order to solve such a problem, it is an object to provide a pulse modulator, which outputs a modulated pulse wave with narrow pulse width and a pulse wave radar device, which can output a modulated pulse wave with narrow pulse width. In order to achieve this operation, the pulse modulator and the pulse wave radar device of the present invention differentiate a pulse from a pulse generating circuit so as to generate a differentiated wave with narrow width, and switch an oscillated wave from an oscillating circuit according to the differentiated wave so as to output a modulated pulse wave with narrow pulse width.